Supplementary Material

## Supplementary Tables

**Supplementary Table S1.** Relative amounts of SDS-soluble proteins (≥ 91 kDa) in sourdoughs and bread dough. Data are presented as means ± standard deviation of two independent fermentation and baking trials. Values in the same column differ significantly if they do not share a common lower case superscript (*P*<0.05) (n=2).

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Addition of Baker’s yeast | Combined starters | Relative content of SDS-soluble proteins | | | | |
| Stage I | Stage II | Mix | Rest | Proof |
| K1 (+)a) | *K. humilis L. sanfranciscensis* | 1.15±0.08cde | 1.19±0.04a | 0.97±0.15b | 0.73±0.05c | 0.76±0.05cd |
| K1 (-) | 0.97±0.11b | 0.74±0.04c | 0.71±0.02d |
| K2 (+) | *K. humilis  L. sakei* | 1.14±0.02de | 1.17±0.14a | 1.03±0.06ab | 0.84±0.05b | 0.91±0.06ab |
| K2 (-) | 0.95±0.03b | 0.83±0.09b | 0.80±0.02c |
| S1 (+) | *S. cerevisiae  L. sanfranciscensis* | 1.36±0.05a | 1.22±0.02a | 1.03±0.16ab | 0.92±0.10ab | 0.88±0.02b |
| S1 (-) | 1.03±0.08ab | 0.86±0.09b | 0.92±0.07ab |
| S2 (+) | *S. cerevisiae  L. sakei* | 1.31±0.03ab | 1.18±0.01a | 0.98±0.11b | 1.00±0.08a | 0.90±0.03ab |
| S2 (-) | 1.04±0.10ab | 0.89±0.10ab | 0.86±0.09abc |
| W1 (+) | *W. anomalus  L. sanfranciscensis* | 1.23±0.02bcd | 1.04±0.05ab | 1.02±0.02b | 0.95±0.07ab | 0.84±0.09b |
| W1 (-) | 1.14±0.10ab | 0.97±0.07ab | 0.92±0.10ab |
| W2 (+) | *W. anomalus  L. sakei* | 1.27±0.05abc | 1.14±0.03ab | 1.02±0.04b | 0.90±0.01b | 0.90±0.01a |
| W2 (-) | 1.10±0.06ab | 0.93±0.02ab | 0.89±0.09ab |
| L. sf (+) | *L. sanfranciscensis* | 1.10±0.01ef | 1.27±0.13a | 1.01±0.04b | 0.87±0.01b | 1.00±0.05a |
| L. sk(+) | *L. sakei* | 1.04±0.01ef | 1.13±0.03ab | 1.19±0.07a | 0.95±0.03ab | 1.01±0.08a |
| CA | CA controlb) | 1.00±0.00f | 0.92±0.03b | 1.02±0.01b | 0.95±0.02ab | 0.82±0.09bc |
| SD | Straight dough | n.a. | n.a. | 0.86±0.03c | 0.75±0.01c | 0.75±0.05cd |

a) (+) indicates addition of baker’s yeast to the bread dough; (-) no addition of baker’s yeast

b) CA, chemically acidified

**Supplementary Table S2.** Relative amounts of SDS-DTT soluble proteins (≥ 91 kDa) in sourdoughs and bread dough. Data are presented as means ± standard deviation of two independent fermentation and baking trials. Values in the same column differ significantly if they do not share a common lower case superscript (*P*<0.05) (n=2)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Addition of Baker’s yeast | Combined starters | Relative content of SDS-DTT soluble proteins | | | | |
| Stage I | Stage II | Mix | Rest | Proof | |
| K1 (+)a) | *K. humilis L. sanfranciscensis* | 0.58±0.05bc | 0.96±0.02bc | 1.66±0.01b | 2.00±0.10bc | 1.82±0.11bc | |
| K1 (-) | 1.77±0.02ab | 2.08±0.07ab | 2.07±0.19ab | |
| K2 (+) | *K. humilis  L. sakei* | 0.52±0.06bc | 0.78±0.05d | 1.27±0.15c | 1.94±0.09bcd | 1.83±0.22bcd | |
| K2 (-) | 1.27±0.09c | 1.99±0.06bc | 2.05±0.25ab | |
| S1 (+) | *S. cerevisiae  L. sanfranciscensis* | 0.64±0.05b | 0.95±0.05bc | 0.76±0.03g | 1.60±0.03f | 1.75±0.08cd | |
| S1 (-) | 1.30±0.15c | 1.80±0.12cde | 1.87±0.01b | |
| S2 (+) | *S. cerevisiae  L. sakei* | 0.67±0.12b | 1.02±0.01b | 1.08±0.01cde | 1.77±0.06def | 1.76±0.03cd | |
| S2 (-) | 1.19±0.03c | 1.89±0.06bcd | 2.10±0.08ab | |
| W1 (+) | *W. anomalus  L. sanfranciscensis* | 0.54±0.02bc | 0.81±0.10cd | 1.13±0.04cd | 1.70±0.16ef | 1.88±0.16bcd | |
| W1 (-) | 1.06±0.12cdef | 1.74±0.09def | 1.75±0.04c | |
| W2 (+) | *W. anomalus  L. sakei* | 0.53±0.01c | 0.70±0.02d | 0.88±0.03efg | 1.58±0.05f | 1.72±0.01cd | |
| W2 (-) | 0.81±0.02g | 1.85±0.11cde | 1.92±0.09bc | |
| L. sf (+) | *L. sanfranciscensis* | 0.57±0.07b | 0.73±0.07d | 0.92±0.10defg | 1.63±0.01ef | 1.70±0.10de | |
| L. sk(+) | *L. sakei* | 0.46±0.05d | 0.74±0.01d | 0.82±0.07g | 1.56±0.04f | 1.59±0.02e | |
| CA | CA controlb) | 1.00±0.00a | 1.92±0.01a | 1.18±0.09c | 1.74±0.07de | 1.81±0.07bcd | |
| SD | Straight dough | n.a. | n.a. | 1.90±0.06a | 2.22±0.09a | 2.24±0.10a | |

a) (+) indicates addition of baker’s yeast to the bread dough; (-) no addition of baker’s yeast

b) CA, chemically acidified